

LIPHISTIUS SCHIÖDTE, 1849 (ARANEAE): PROPOSED VALIDATION
UNDER THE PLENARY POWERS. Z.N.(S.) 1828

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The purpose of the present application is to ask the International Commission on Zoological Nomenclature to use its plenary powers to validate the emendation to *Liphistius* of the generic name *Lipistius* Schiödte, 1849, and to place the emended name on the Official List of Generic Names in Zoology and the family name LIPHISTIIDAE Thorell, 1869, on the Official List of Family-Group Names in Zoology.

2. The name *Lipistius* Schiödte, 1849 (*Nat. Tidskr.* (2) 2 : 621) with the type-species *L. desultor* by monotypy was first emended by Thorell in 1869, *On European Spiders* : 13, to *Liphistius*. Since that time, 1869, the name has been spelled consistently *Liphistius* in the zoological literature, the only exception being the catalogs of generic names of Marschall, 1873, Scudder, 1882, and Neave, 1939 (see Bonnett, 1957, *Bibliographia Araneorum* 2 : 2548-2549; . . . "dès 1869, Thorell p. 13 en donnant l'étymologie de ce terme, l'a corrigé en *Liphistius*; tous les auteurs l'ont ainsi employé par la suite").

3. The catalog of C. F. Roewer, 1942, *Katalog der Araneae* 1 : 145, like previous catalogs spelled the genus *Lipistius*. Now after almost 100 years, one widely used European textbook and at least one taxonomic publication have followed the spelling of Roewer's Katalog.

4. The name *Liphistius* is the basis for the name of the family LIPHISTIIDAE [LIPHISTOIDAE, Thorell, 1869, *On European Spiders* : 43] and the basis of the name of one of the three suborders of spiders Liphistiomorphae Petrunkevitch, 1923, *Ann. New York Acad. Sci.* 29 : 167 [=Mesotheleae Pocock, 1892, *Ann. Mag. nat. Hist.* (6) 10 : 314], a name still used by some authors. The name *Liphistius* and that of the higher taxa based on it is cited in many textbooks and other publications as an example of a primitive spider whose abdomen is segmented.

5. The International Commission is therefore requested:

- (1) to use its plenary powers to validate the emendation to *Liphistius* of the generic name *Lipistius* Schiödte, 1849;
- (2) to place the generic name *Liphistius* Schiödte, 1849 (gender : masculine), type-species, by monotypy, *Lipistius* [sic] *desultor* Schiödte, 1849, on the Official List of Generic Names in Zoology;
- (3) to place the specific name *desultor* Schiödte, 1849, as published in the binomen *Lipistius desultor* (type-species of *Liphistius* Schiödte, 1849) on the Official List of Specific Names in Zoology;
- (4) to place the family name LIPHISTIIDAE Thorell, 1869 (type-genus *Liphistius* Schiödte, 1849) on the Official List of Family-Group Names in Zoology;
- (5) to place the generic name *Lipistius* Schiödte, 1849 (Ruled under the plenary powers in (1) above to be an incorrect original spelling for *Liphistius*) on the Official Index of Rejected and Invalid Generic Names in Zoology.

BOLLIA JONES AND HOLL, 1886 (OSTRACODA): DESIGNATION OF
A TYPE-SPECIES UNDER THE PLENARY POWERS. Z.N.(S.) 1831

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I. *Introduction.* Jones and Holl (1886) erected the new genus *Bollia* and included in it two new species, *B. bicollina* and *B. uniflexa*. They based the species *B. bicollina* on three figured specimens as well as other unfigured material. Additional specimens of this species have been found in abundance by the author as well as by other workers. *B. uniflexa* was based on a single figured specimen. No other specimens of this species were found by Jones and Holl or by any subsequent workers.

Jones and Holl did not select a type-species for the genus *Bollia*. Miller (1892) subsequently designated *Bollia uniflexa* as the type-species for *Bollia*.

II. *Origin and nature of the problem.* In 1963 the author visited the British Museum (Natural History) and re-examined the figured specimens of *B. bicollina* and *B. uniflexa*. It was immediately apparent that *B. uniflexa* is not a drepanellacean ostracode, as it is presently classified, but that it is a member of the Beyrichiacea, a superfamily characterized by a unique type of shell dimorphism.

It was also noted that of the 69 different species that have been assigned to *Bollia*, most of them favourably agree with the figured specimens of *B. bicollina*, but none agree with the type-species, *B. uniflexa*.

Bollia is large in number of species contained in the genus. It is rather common in the appropriate temporal interval (Early and Middle Palaeozoic), and a concept of the genus is thoroughly ingrained in the paleontological literature. Unfortunately, the past and present concept of the genus is not based on the type-species, *B. uniflexa*, but it is based on the species *B. bicollina*. As *B. uniflexa* is now known to be a beyrichiaceous ostracode it must be transferred out of the superfamily Drepanellacea. The common concept of the genus, however, is conveyed by *B. bicollina*, which, with all the other present species of *Bollia*, will remain in the superfamily Drepanellacea. The possible solutions to this problem, therefore, would be to transfer *Bollia* to the Beyrichiacea with *B. uniflexa* as the type-species or to suppress *B. uniflexa* as the type-species, designate *B. bicollina* as the type-species, and retain *Bollia* in the Drepanellacea.

III. *Consequences of transferring Bollia to the Beyrichiacea while retaining B. uniflexa as the type-species.* If *B. uniflexa* is not suppressed as the type-species for *Bollia*, then *Bollia* would have to be removed from the superfamily Drepanellacea and transferred to the superfamily Beyrichiacea. The consequences of such a transfer would be as follows:

- (1) Such a transfer would affect drepanellacean systematics in the following manner:

The present classification (Scott, 1961) of drepanellacean ostracodes is as follows:

Superfamily Drepanellacea Ulrich & Bassler, 1923

Family Drepanellidae Ulrich & Bassler, 1923

Family Aechminellidae Sohn, 1961

Family Aechminidae Bouček, 1936

Family Bolliidae Bouček, 1936

Family Kirkbyellidae Sohn, 1961

Family Richinidae Scott, 1961

The transfer of *Bollia* to the Beyrichiacea would necessitate that the subfamily Ulrichiinae Schmidt, 1941 be translated to family status to replace the family name Bolliidae and that all nominal species of *Bollia*, except *B. uniflexa*, be assigned to a new genus.

- (2) Such a transfer would affect beyrichiacean systematics in the following manner:

The present classification (Martinsson, 1963) of beyrichiacean ostracodes is as follows:

Superfamily Beyrichiacea Matthew, 1886

Family Craspedobolbinidae Martinsson, 1962

Subfamily Craspedobolbininae Martinsson, 1962

Subfamily Treposellinae Henningsmoen, 1954

Subfamily Amphitoxotidinae Martinsson, 1962

Family Beyrichiidae Matthew, 1886

Subfamily Beyrichiinae Matthew, 1886

Subfamily Zygobolbininae Ulrich & Bassler, 1923

Subfamily Kloedeniinae Ulrich & Bassler, 1923

Subfamily Hexophthalmoidinae Martinsson, 1962

Great taxonomic importance is placed on the structure of the female brood pouch in classifying beyrichiacean ostracodes. The type and only known specimen of *B. uniflexa* is a male of the species and considerable uncertainty exists as to where amongst the forementioned beyrichiacean subfamilies it should be placed. The specimen of *B. uniflexa* possesses some of the characters of the amphitoxotidines and of the treposellines, as well as characters unique to this species. The transfer of *Bollia*, therefore, to the Beyrichiacea could result in one of the following systems:

- (a) Transfer of *Bollia* to the subfamily Treposellinae. In which case, in accordance with the Law of Priority, the Treposellinae Henningsmoen, 1954 would become a junior synonym of the Bolliinae Bouček, 1936 and the Craspedobolbinidae Martinsson, 1962 would become a junior synonym of the Bolliidae Bouček, 1936.
- (b) Transfer of *Bollia* to the subfamily Amphitoxotidinae. In which case, in accordance with the Law of Priority, the Amphitoxotidinae Martinsson, 1962 would become a junior synonym of the Bolliinae Bouček, 1936 and the Craspedobolbinidae Martinsson, 1962 would become a junior synonym of the Bolliidae Bouček, 1936.

- (c) Transfer of *Bollia* to a new subfamily in the family Craspedobolbinidae.

In which case, in accordance with the Law of Priority, the Craspedobolbinidae Martinsson, 1962 would become a junior synonym of the Bolliidae Bouček, 1936 and this family would accommodate the new subfamily Bolliinae Bouček, 1936.

- (d) Transfer of *Bollia* to a new family within the Beyrichiacea.

In which case the new beyrichiacean family Bolliidae Bouček, 1936 would, because of the nature of the type-specimen of the type-species, remain in a monotypic family.

In order to promote a stable nomenclature and in order not to disrupt the past and present concept of the genus *Bollia*, none of the above transfers are deemed desirable. Not only will the systematics of the Drepanellacea be disrupted, but the systematics of the Beyrichiacea can never be stabilized until a female specimen of *B. uniflexa* is found. No such specimen exists in the original collections of Jones and Holl. The author has extensively sampled the same temporal interval and has not recovered a single specimen of *B. uniflexa* among the thousands of ostracodes found. Both Dr. Anders Martinsson of Uppsala, Sweden and Dr. Eric Robinson of London, England have likewise sampled the critical interval and neither has found a specimen of *B. uniflexa*.

IV. *Consequences of suppressing Bollia uniflexa as type-species for Bollia and designating Bollia bicollina as type-species for Bollia.* In view of the undesirable aspects of transferring *Bollia* from the Drepanellacea to the Beyrichiacea, the consequences of suppressing *B. uniflexa* as type-species and designating *B. bicollina* as type-species should be considered.

These consequences are as follows:

- (1) A stable nomenclature will ensue because no changes in the systematics of the Drepanellacea will be necessary. *B. uniflexa* can tentatively be assigned to an existing or new beyrichiacean genus. This genus can likewise be provisionally assigned to an existing subfamily pending discovery of a female specimen.
- (2) The preservation of the past and present concept of the genus *Bollia* will result because the common concept of *Bollia* is best conveyed in the species *B. bicollina*. Although type localities were not designated for either *B. uniflexa* or *B. bicollina*, specimens conspecific with *B. bicollina* can easily be collected for study.

V. *Recommendations.* The following recommendations are therefore made, that the International Commission should:

- (1) use its plenary powers to set aside all designations of type-species for the nominal genus *Bollia* Jones and Holl, 1886, and having done so, designate *Bollia bicollina* Jones and Holl, 1886, to be the type-species for that genus;

- (2) place the following generic name on the Official List of Generic Names in Zoology: *Bollia* Jones and Holl, 1886, (gender : feminine) type-species by designation under the plenary powers in 1. above, *Bollia bicollina* Jones and Holl, 1886;
- (3) place the following specific name on the Official List of Specific Names in Zoology: *bicollina* Jones and Holl, 1886, as published in the binomen *Bollia bicollina* (type-species of *Bollia* Jones and Holl, 1886);
- (4) place the family-name BOLLIIDAE Bouček, 1938 (type-genus *Bollia* Jones and Holl, 1886) on the Official List of Family-Group Names in Zoology.

LITERATURE CITED

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